10/5622/3

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



# - 1 CELA TIMUNUN DENNE NEM ELMI ELMI KAN EN DI KURUKETI MAT EMI EMI EMI DENNEM IN DENNEM INDI MER DEL

(43) International Publication Date 29 December 2004 (29.12.2004)

PCT

(10) International Publication Number WO 2004/113644 A1

(51) International Patent Classification7: E04H 09/16, E04B 01/72 E04F 19/04,

(74) Agent: PULLEN, Kevin; Aardvark Patent & Trade Mark Services, PO Box 241, Landsborough, QLD 4550 (AU).

(21) International Application Number:

PCT/AU2004/000817

(22) International Filing Date:

23 June 2004 (23.06.2004)

(25) Filing Language:

English

(26) Publication Language:

English

7.W

(30) Priority Data: 2003903193

24 June 2003 (24.06.2003) AU

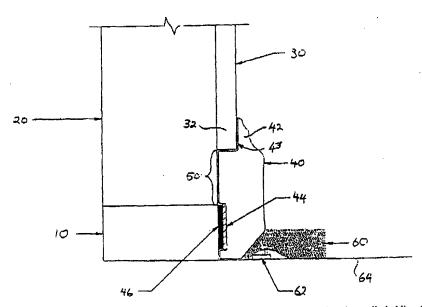
- (71) Applicant (for all designated States except US): TER-MAVIEW PTY LTD [AU/AU]; P O Box 6112, Gold Coat MC, QLD 9726 (AU).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): LAVELL, Peter, Maxwell [AU/AU]; 101 Tallow Wood Drive, Kuluin, QLD 4558 (AU).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,

TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: BUILDING WALL STRUCTURE



(57) Abstract: A removable wall skirting system is disclosed. In a wall structure where an interior wall cladding (30) is carried by a frame and in which a gap (50) is provided between a bottom edge of the cladding and a bottom wall frame member (10) of the frame, the removable wall skirting system covers this gap (50) but allows easier detection of termite activity within the wall structure. Various means of removably attaching the wall skirting are disclosed including magnetic coupling (44,46), clips (47), and rail (70) and slot (72).

## Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

1

#### TITLE: BUILDING WALL STRUCTURE

10

15

20

25

This invention relates to the field of building wall structures. In particular, the invention relates to a structures and systems applicable in residential buildings and the like that facilitate inspection of the wall structures once constructed, a facility which finds especial, but not limiting, application in the treatment of termite infestations.

Infestation of wooden structures such as residential buildings and the like presents a serious problem in many areas. For example, in some geographic regions up to one in three houses encounter termite infestations that require treatment in order to avoid or curtail the onset of potentially catastrophic damage to the structure. Once termites are detected in a building they can be effectively eradicated using pesticides such as arsenical dusts and the like, but if a termite infestation remains undetected or left untreated, significant and substantial damage can result to timber structures and fixtures.

In areas that are particularly prone to termite attacks, regular inspections of building timbers is thus recommended to reduce the possibility of such damage occurring.

Termites most frequently gain access to timber in a building from a subterranean entry point. Thus, it is building timber closest to the ground that is usually damaged first, and inspection of the lowest wooden structures provide the best early indication of a termite infestation. Present timber framed construction techniques, however, often result in buildings that do not permit access to timber frame members where termite infestations are likely to occur without damage to the building fixtures. In particular, although timber supports may be inspected from beneath a house, it is possible for termites

2

to be present in building wall stude and joists which are not accessible for inspection from beneath.

The present invention aims to provide in one preferred aspect a system whereby termite inspection and treatment can be more readily undertaken at the base of wall studs and/or where wall studs and floor joists meet. The present invention in a further preferred aspect aims to provide a wall skirting system which allows access to the lower portion of a wall structure normally covered by wall skirting.

In a first preferred aspect, the present invention provides a wall structure for a building in which a gap is provided between a bottom edge of an interior wall cladding, such as plasterboard or the like, the wall cladding being carried by a wall frame, and a bottom wall frame member of the frame whereby lower portions of the wall frame are accessible through the gap, and a wall skirting means adapted to fit along and support the bottom edge of the cladding and to cover the gap, the wall skirting means including a wall skirting member movable away from the wall structure to allow for access to the wall frame through the gap.

10

15

Typically, the wall frame is a timber wall frame and access through the gap allows for inspection of the timber wall frame members.

In another preferred aspect, the present invention provides wall skirting means adapted to be associated with a wall structure of a building having an interior wall cladding carried by a wall frame and in which a gap is provided between a bottom edge of the cladding and a bottom wall frame member of the frame, the wall skirting means being adapted to fit along and support the bottom edge of the wall cladding and cover the gap, the wall skirting means

3

including a wall skirting member movable away from the wall structure to allow for access to the wall frame through the gap.

The wall frame typically comprises a timber wall frame. Thus by inspection of the wall structure and wall frame through the gap, for example, the presence of termites therein may be detected and/or any detected termites treated with pesticides or the like. Following inspection of the wall timbers through the gap in the wall cladding, the wall skirting member can be replaced on the wall structure to once again cover the gap.

In one preferred form, the wall skirting member provides support to and locates the bottom edge of the wall cladding and various forms of attachment means can be used to secure the skirting member to the wall structure whilst allowing for removal and replacement thereof. In one form of the invention, clips are provided which couple the skirting member to lower portions of upright wall frame members and/or bottom wall frame members that are exposed by the gap in the wall cladding. In another form of the invention, magnetic coupling means is employed, comprising a magnetic strip affixed to the skirting member and a complementary metal strip affixed to a horizontal frame member of the frame, magnetic attraction between the magnetic strip and metal strip holding the skirting member in place relative to the wall frame.

As referred to above, the wall skirting member is suitably configured to locate and support the bottom edge of the wall cladding, in one form, the wall skirting member includes a rebate or recess in which the lower edge of the wall skirting member may be located and thereby be supported. The rebate or recess is suitably provided in an upper inside portion of the wall skirting

25 member.

ΙŬ

In another preferred configuration, the bottom edge of the wall cladding may be positively and releasably connected to the wall skirting member. For this purpose, the bottom edge may be fitted with a rail and releasable connection means may be provided between the rail and wall skirting member. The releasable connection means may comprise a slot or the like in the rail and a clip member extending from the wall skirting member releasably receivable in the slot in the rail. The rail may include a slot or channel into which the bottom edge of the wall cladding may be located.

In another preferred form of the invention, a support framework or backing member is attachable along the bottom edge of the wall cladding and the wall skirting member is mountable to the support framework. Beneficially, the supporting framework can provide additional rigidity to the cladding sheet bottom edge to prevent bowing or other deformation thereof which may otherwise occur in view of the cladding sheet being unsupported between upright wall studs.

10.

15

20

25

Preferably, the support framework or backing member extends between the bottom edge of the wall cladding and bottom frame member or floor and is affixed to the wall frame. Preferably, the bottom edge of the cladding is located in a rebate, recess or channel in an upper portion of the support framework so as to be supported longitudinally of the wall structure.

The wall skirting member may be releasably attached to the support framework to be removable therefrom to permit access to the gap. In one configuration, the support framework may be constructed with an outwardly facing slot adapted to receive clips or projections on the rear face of the skirting member so as to provide the attachment therebetween. Alternatively,

5

magnetic latching means or other forms of latching means may be provided between the wall skirting member and support framework.

In another embodiment, the wall skirting member may be pivotally or hingedly mounted to the support framework so as to be capable of being pivoted or swung away from the wall skirting member to an open position permitting access to the gap or pivoted or swung to a closed position covering the gap. Suitably latching means may be provided to releasably retain the wall skirting member in the closed position. The latching means suitably comprise cooperable latching members on the support framework and wall skirting member.

The skirting member sultably comprises an elongated member such as an extrusion. The skirting member suitably is provided with at least one or a series of openings therein through which the wall frame can be inspected. The support framework or backing board may also be an extrusion.

10

Bait containers may be associated with the wall skirting means for treatment of, or attracting, termites or other insects or vermin in the wall structure. Suitably, the bait containers are releasably received in the or an opening in the support framework. In one embodiment, the container is open at least at its inner end and, at its outer end, the container may be provided with a door or other closure member allowing access to the interior of the container for placement of, or removal of, bait.

Preferably, corner members are associated with inner and outer corners of a wall structure and the support framework for the wall skirting members is provided between the corner members. The corner members may comprise base members attachable to the wall structure at the corners and cover

members releasably attached to the base members. Suitably, the cover members when engaged with their base members overlie and hide marginal edges of the support framework and associated wall skirting members which are in abutting or substantial abutting relationship with the corner members.

End stops may also be provided at the ends of the support framework. The end stops may include base members attachable to the wall structure and cover members releasably attached to the base members. Suitably, the cover members when engaged with their base members overlie a marginal edge of the support framework and associated wall skirting members in abutting or substantial abutting relationship with the corner members.

10

15

The invention and various implementations thereof are described in greater detail hereinafter with reference to the accompanying drawings, in which:

Figure 1 is a side cross-sectional view of a building lower wall structure constructed in accordance with an embodiment of the invention;

Figure 2 is a cut-away diagrammatic front view of a building lower wall structure with skirting member removed;

Figure 3 is a side cross-sectional view of a building lower wall structure constructed in accordance with another embodiment of the invention:

Figure 4 is plan cross-sectional view of the wall structure of Figure 3;

Figure 5 is a side cross-sectional view of a building lower wall structure constructed in accordance with another embodiment of the invention:

15

20

Figure 6 is a view of a building lower wall structure in constructed in accordance with another embodiment of the invention;

Figure 7 is a side-cross-sectional view of a lower wall structure constructed in accordance with yet another embodiment of the invention:

Figure 8 is a side-cross-sectional view of a lower wall structure constructed in accordance with yet another embodiment of the invention;

Figure 9 is a cut-away diagrammatic front view of the building lower wall structure according to Figure 8, with skirting member removed;

Figures 10 to 16 are side-cross-sectional views of lower wall structures constructed in accordance with further embodiments of the invention;

Figure 17 illustrates a skirting board assembly according to yet a further embodiment of the present invention installed in association with a building frame clad with plasterboard;

Figures 18 and 19 illustrate, in front and end views, the backing member of the skirting board assembly of Figure 17;

Figures 20 and 21 illustrate, in front and end views, the fascia or cover strip of the skirting board assembly of Figure 17;

Figures 22 and 23 illustrate, in a front partially cut-away view and end view, the assembled skirting board assembly of Figure 17;

10

15

25

Figures 24 and 25 illustrate an inside corner base and cover respectively for use in the skirting board assembly;

Figures 26 and 27 illustrate an outside corner base and cover respectively for use in the skirting board assembly;

Figures 28 and 29 illustrate an end stop base and cover respectively for use with the skirting board assembly;

Figure 30 illustrates a joiner for use with the skirting board assembly; and

Figures 31 and 32 illustrate, in perspective and side views, a bait box for use with the skirting board assembly.

Referring first to Figure 1, the wall structure has a lower horizontal frame member or bottom plate 10 that is substantially at floor level 64, and an upright frame member in the form of a wall stud 20 that extends upwards from the lower horizontal frame member 10. The wall frame members 10, 20 are constructed from timber, as is usual in many buildings. The frame members 10, 20 are concealed within the wall of the building by an interior cladding sheet 30, which might typically comprise plasterboard, drywall material or timber veneer, for example.

In an ordinary wall construction, the cladding 30 extends all the way to the floor level 64 and is attached to the lower horizontal frame member 10 and wall stude 20 using nails or some other suitable fastenings. However, in the structure of the embodiment as illustrated in Figure 1, the plasterboard 30

. 10

15

25

does not extend all the way to the floor, and the lower edge 32 thereof is positioned so that a gap 50 is provided between the bottom of the plasterboard 30 and the horizontal frame member 10. Figure 2 illustrates the wall structure just described with the gap 50 extending along the wall beneath the bottom edge of the plasterboard 30 and above the top of the horizontal frame member 10. The gap 50 allows the horizontal frame member 10 and the lower portion of the wall stud 20 to be examined for evidence of termite infestation.

To shield the gap 50 along the bottom of the wall during normal circumstances, a removable skirting member is provided in the form of an elongate skirting board 40 shown in end cross-section in Figure 1. The skirting board 40 is adapted to be attached to the wall structure and cover the gap 50. An upper portion 42 of the skirting board 40 overlaps the lower edge 32 of the plasterboard 30. In addition, the rear side of the skirting board 40 at the upper portion 42 is provided with a recess or rebate 43 in which the lower edge 32 of the plasterboard 30 is located such that the lower edge 32 is supported continuously and between the wall studs 20. The surface of the skirting board 40 that faces out from the wall can be patterned or sculpted to provide an attractive appearance and, optionally, to interface with an edge of carpet 60 which may be laid on the floor surface 64 and held in place by a fastening device 62. The side of the skirting board 40 that faces the interior of the wall is preferably structured to fit snugly between the bottom edge of the plasterboard 30 and the floor surface 64.

The skirting board 40 is removably fastened to the wall with attachment means that engage with the horizontal wall frame member 10, the wall studs 20, the plasterboard lower edge 32 and/or the floor adjacent the wall. By having the skirting board 40 removable from the wall, access can be easily

15

20

obtained to the timbers in the lower part of the wall through the gap 50. Since termites most frequently enter a house from below, inspection of these lower wall timbers may provide a good indication of the presence of termites in the building. In order to inspect the timbers forming the wall framework, the skirting board 40 is removed from the wall and the frame members 10, 20 are inspected visually, and/or using tools and sensing equipment as is known to termite inspectors, through the gap 50 exposed between the plasterboard and the floor. If termites are found infesting the wall timbers, pesticide treatments or the like can also be applied through the gaps. Once the termite inspection and/or treatment is complete, the skirting board 40 is replaced along the bottom of the wall to once again conceal the gap 50 and wall frame members.

Various attachments to hold the skirting board 40 in relation to the wall are possible. Figure 1 illustrates one such possible attachment means in the form of a magnetic coupling. In this case, a magnetic strip 44 is attached to the rear surface of the skirting board 40 using an adhesive or the like, and a complementary metal strip 46 is attached to the outwardly facing surface of the horizontal frame member 10. The metal strip can be attached to the horizontal frame member 10 using adhesive, nails or other suitable affixing means. When the skirting board 40 is positioned in place to cover the gap 50, the magnetic strip 44 and metal strip 46 are positioned adjacent one another so that magnetic forces of attraction tend to hold them together. The magnetic attraction forces act to hold the skirting board 40 in its desired position, but allow for the skirting board to be removed for inspection of the wall frame timbers as described above.

Figures 3 and 4 diagrammatically illustrate another example of an attachment means for releasably holding the skirting board in place along the bottom of the wall. In this case clips 47 are affixed to the rear of the skirting board and

11

positioned to engage the sides of the upright wall stud 20. Alternatively, clips can be affixed to the wall studs 20 and/or horizontal frame members 10 to engage with a groove formation or the like in the rear of the skirting board, although such an arrangement is not shown in the drawings.

Figure 5 illustrates another way of releasably attaching the skirting board along the bottom of the wall. In this case a rail 70, such as a metal or plastic extrusion, is secured along the bottom edge 32 of the plasterboard 30. The rail 70 advantageously holds the bottom edge of the plasterboard in a straight line between the upright wall studs, the rail 70 for this purpose having a channel 71 into which the bottom edge of the plasterboard 30 projects. The rail 70 includes a slot or the like 72 which is adapted to receive clip projections 48 extending from the upper rear face of the skirting board 40. The engagement between the projections 48 and the slot in the rail holds the skirting board in place along the bottom of the wall. A bottom support bracket 75 may be additionally provided, attached to the floor and/or horizontal frame member, to hold the lower edge of the skirting board 40 in place.

15

Figure 6 illustrates another way of releasably attaching the skirting board along the bottom of the wall. In this case, a rail 80 or series of clips are attached to the horizontal frame member 10, having a projecting lip that extends upwardly and out from the wall. The rear of the skirting board 40 has a shaped longitudinal slot formed therein defined partially by a lip 82 that extends downwardly to engage, in use, the lip of the rail 80. When the skirting board is fitted along the wall, the lip of rail 80 is received within the longitudinal slot in the rear of the skirting board, and surfaces of the lips on the rail and skirting board bear against one another to hold the skirting board against the wall. The sloped shape of the interengaging lips ensure that downward force on the skirting board relative to the wall tends to press the skirting board

12

against the wall. Conversely, the skirting board can be released from the wall by applying upward force to the skirting board whilst simultaneously drawing the skirting board away from the wall.

Figure 7 illustrates a variation of the wall structure and skirting board of Figure 1 adapted specifically for "wet" areas of a building, such as a bathroom or kitchen. Here, a plastic base 92 is provided where the floor surface 64 meets the lower horizontal frame member 10. The bottom of the skirting board 40 rests in a groove on the base 92, and is held in place by magnetic attraction between magnets 44 and metal strip 46. Tiles 90 are affixed to the front of the skirting board 40, extending upward from the base 92 to overlap the bottom edge 32 of the plasterboard 30.

Variations of the skirting board structure of the present invention which facilitate inspection of wall timbers are illustrated in Figures 8 to 16. These embodiments each include a skirting support framework 100 which extends between the floor level of the building and the bottom edge of the plasterboard 30. The skirting support framework 100 provides for attachment of the skirting board 40 thereto whist allowing for removal or pivotal movement of the skirting board for access to the interior timbers of the building wall for inspection.

15

25

Referring to Figures 8 and 9, the skirting support framework 100 is shown having upper and lower elongate rails 102, 104, respectively, that are joined at longitudinal intervals by support rods 106. The skirting support framework 100 is affixed to the wall structure by appropriate means (e.g. nails, screws, adhesive or the like) to the horizontal wall frame member 10 and/or wall studs 20, and is preferably also attached to the lower edge 32 of the plasterboard 30. In this embodiment, the lower rail 104 extends outwardly from the horizontal wall frame member 10 along the floor surface, and provides a base

for the skirting board 40 to sit on when in place along the wall. The upper rail 102 of the skirting support framework, in this case, provides a slot 72 of the type shown in Figure 5 described above.

The upper rail 102 has an upwardly projecting portion that extends marginally along the rear of the plasterboard bottom edge, and is preferably attached thereto. The upwardly projecting portion additionally forms a recess 101 in which the bottom edge 32 of the plasterboard 30 is located to be thereby supported between the wall studs 20. In order to accommodate that projecting portion of the upper rail, the bottom edge of the plasterboard may be formed with a complementary notch or groove.

Figures 10 and 11 illustrate another embodiment of the invention in which like components to the embodiment of Figures 8 and 9 have been given like numerals. The embodiment of Figures 10 and 11 also utilizes a skirting support framework 100 with the lower or bottom edge 32 of the plasterboard 30 projecting into a channel formed by the upper rail 102. In this case the skirting board 40 is pivotally coupled to the skirting support framework lower rail 104 at a hinge coupling 112. The pivotal connection allows the skirting board to pivot between a closed position as illustrated in Figure 10 and an open position as shown in Figure 11. A spring member 110 is also coupled between the skirting board 40 and the lower rail 104 to resiliently urge the skirting board 40 toward the closed position. In order to inspect the wall timbers for termites and the like, the top of-the skirting board 40 is pivoted away from the wall against the bias of spring member 110, and the wall interior is then visible between the upper and lower rails 102, 104 and support rods 106.

15

20

Figure 12 illustrates a variation of the structure of Figure 10, although, in this case, the upper rail 102 of the skirting support framework includes an external portion 103 that extends along the outer bottom edge of the plasterboard 30. The upper edge of the skirting board 40 is arranged to closely align with the bottom of the upper rail external portion 103 to present an appearance much like a single piece skirting board.

Figure 13 illustrates a variation of the structure of Figure 12 whereby a magnetic coupling 115 or the like is between the skirting board 40 and skirting support framework in place of the spring member 110. The magnetic coupling 115 which is similar to that described with reference to Figure 1 releasably holds the skirting board 40 in position.

- 10

15

20

25

Figure 14 illustrates a variation of Figure 13 in which only magnetic couplings 115 are utilized, and the skirting board 40 slides out from the skirting support framework rather than pivoting.

Figures 15 and 16 show variations of the skirting support framework 100 according to embodiments of the invention, without skirting boards in place. In the embodiment of Figure 15, the upper rail has a rear wedge cross-sectioned portion 120 that, in conjunction with the upper rail external portion 103, provides a slot formation to receive the bottom edge of the plasterboard 30. This embodiment is appropriate for plasterboard that tapers toward the edge, which is usual for many plasterboard constructions. Another embodiment is shown in Figure 16 in which the upper rail 102 includes rear spaced clip portions 122 for supporting the back of the plasterboard bottom edge. The clip portions 122 are advantageously sufficiently spaced to allow a wall stud 20 to fit therebetween.

PCT/AU2004/000817 WO 2004/113644

15

The removable skirting boards described above can be fabricated from timber. particle board or any other suitable wood based material, or can be constructed from plastics or metal, or some combination of such materials if desired. The particular means of attaching the skirting board along the wall may be integrated into the structure of the skirting board itself or can be added after fabrication of the board. Although several forms of releasable attachment means are described hereinabove, others are, of course, also possible and may be incorporated into the skirting board and wall structure of the present invention.

10 - A further embodiment of the invention will now be described with reference to Figures 17 to 32. In Figure 17, there is illustrated a skirting board assembly 200 in association with a wall structure comprising a wall frame 201 having lower horizontal frame members or bottom plates 202 that are substantially at floor level 203, and upright frame members in the form of wall studs 204 that extend upwardly from the lower horizontal frame members 202. The wall frame members 202 and 204 are constructed from timber, as is usual in many buildings and are concealed by an interior cladding 205, which might typically comprise plasterboard, drywall material or timber veneer, for example. The wall structure in the embodiment illustrated in Figure 17 forms an external corner 206 and an internal corner 207 and the cladding 205 is shown as terminating at an end frame member 208 which may for example be a door frame member. In the structure of the embodiment of the invention and as illustrated in Figure 17, the cladding 205 does not extend all the way to the floor 203 but cooperates with the skirting board assembly 200 as described further below so that the bottom edge 209 thereof is positioned so that a gap is provided between the bottom edge 209 of the cladding 205 and the horizontal frame member 202.

15

20

16

The skirting board assembly 200 as shown also in Figures 18 to 23 includes an elongated backing member or framework 210 which is adapted to be secured to the wall frame 201 such as to extend between the floor level 203 of the building and the bottom edge 209 of the cladding 205. The backing member 210 is typically formed as an extrusion having a rear flange 211 which forms a mounting face for the backing member 210 and which is provided at its upper end with a channel 212 for receipt of the lower edge 209 of the cladding 205 as shown in dotted outline. The side flanges 213 and 214 of the channel 212 are relatively thin. The lower end of the rear flange 211 is kicked outwardly and terminates in a pair of tapering fingers 215 for seating on the surface of the floor 203. The backing member 210 additionally includes adjacent its lower end a curved female recess 216 and, towards its upper end and beneath the channel 212, a retaining recess 217. The backing member 210 additionally includes upper and lower locating grooves 218 and 219 for locating fasteners for mounting of the backing member 210 as described further below. Sections of the flange 211 are removed between the upper and lower locating grooves 218 and 219 to form a series of inspection openings 220 through which termite activity in the wall frame 201 can be observed.

The skirting board assembly 200 additionally includes a cover strip or front panel 221 (see Figures 20 and 21) which is also preferably an extruded member and which is adapted to cooperate with the backing member 210. The cover strip 221 includes an outer fascia member 222 which is provided with a curved finger 223 at its lower end for complementary cooperation with the curved recess 216 of the backing member 210 and towards its upper end an inwardly extending finger 224 having an enlarged end 225 for engagement with the retaining recess 217 of the backing member 210. The fascia member 222 additionally includes a supporting finger 226 which is adapted to abut the

17

flange 211 of the backing member 210 whilst the upper end 227 of the fascia member 222 is tapered and curves inwardly to terminate at tip 228.

At the internal corners 207, inner corner base members 230 as illustrated in Figure 24 are installed. The base members 230 have a pair of wings 231 extending at right angles to each other which may be fastened by nails or screws drive through apertures 232 into the horizontal frame members 202 and/or wall studs 204. The base members 230 also have between the wings 231 upper and lower engagement recesses or latch members 233.

Corner-covers 234-shown in Figure 25 are adapted to cooperate with the bases 230, the covers 234 having a pair of fascia members 235 of similar configuration to the fascia members 212 of the cover strip 221 which extend at right angles to each other. Retaining fingers 236 extend from the junction of the fascia member 235 for location in and snap engagement with the recesses 233 in the corner base members 230 to retain the corner covers 234 to the base members 230. The underside of the fascia members 235 is substantially complementary to the outer surface of the fascia member 222.

At external corners 206, outer corner base members 237 shown in Figure 26 are installed, the base members 237 having a pair of wings 238 extending at right angles to each other and being apertured at 239 to enable the base members 237 to be secured by suitable fasteners driven therethrough into underlying horizontal frame members 212 and/or wall studs 214 of the wall frame 201. The base members 237 are also provided with upper and lower engagement recesses 240.

Adapted for cooperation with the base members 237 are outer corner covers 241 (see Figure 27) having a pair of fascia member 242 extending at right

angles to each other and a pair of upper and lower retaining fingers 243 which extend inwardly from the junction of the wings 242. The fingers 243 are adapted to locate within, and snap engage with, the upper and lower recesses 240 to retain the covers 241 to the base members 237. The fascia members 242 have configuration of similar configuration to the configuration of the fascia members 222 with their undersurfaces of the fascia members 242 being complementary to the outer surface of the fascia members 222.

Where the skirting board assembly 200 is to terminate other than at an inner or outer corner such as at the end frame member 208, end stop base members 244—as—shown in—Figure 28—are—installed. The—end—stop—base members 244 include a planar backing plate 245 which is apertured at 246 to enable the base member 244 to be secured to a horizontal frame member 202 and/or wall studs 203 by screws or other fasteners. The base member 244 also includes upper and lower retaining recesses or latch members 247.

A base member cover 248 shown in Figure 29 is adapted to engage and be retained to the base member 244 by means of upper and lower retaining fingers 249 which locate in and snap engage with the recesses 247. The cover 248 includes an external fascia member 250 of similar configuration to the fascia member 222 of the cover strip 221 and a return end flange 251. Depending upon the location of the base member 244, the flange 251 may be provided at the opposite end of the fascia member 250.

In use, the inner and outer corner base members 230 and 237 are installed as are the end stop base members 244 and the skirting backing member 210 is cut to length to fit between adjacent base members 230 and 237 and/or end stop base members 244 and affixed to the wall frame 201 typically by screws 252 driven through the member 210 at spaced positions along the upper and

19

lower locating grooves 218 and 219 to the horizontal wall frame members 202 and/or wall studs 204. The cladding 205 is then applied to the wall frame 201 with the cladding 205 being of a width such that the lower edge 209 thereof can locate neatly within the channel 202 of the base member 210. This can be achieved by either reducing the width of the upper cladding sheet where a combination sheet i.e. one edge square and one edge recessed, is used for the bottom sheet or alternatively where standard recessed edge sheets are to be used, the bottom recessed edge of the lower sheet is removed to reduce the sheet width and the new cut edge is then inserted into the channel 22. The cladding sheets 205 are then fixed off to the wall studs 202 in the normal manner by cleats or nails.

10

15

25

The cover strips 221 are also cut to length to locate between the corner members 230 and 237 and/or end stop base members 244 and engaged with the backing member 210 by locating the curved fingers 223 in the recesses 216 and pivoting the cover strips 221 upwardly until the retaining finger 224 snap engage with the retaining recess 217 such that the cover strips 221 are positively held in position. In this position as shown in Figure 23, the intermediate finger 226 abuts the flange 211 of the backing member 210 to provide support to the fascia member 222. Further, the tip 228 of the curved part 227 bears against or is adjacent the face of the wall cladding 205. After installation of the cover strips 221, the internal and external corner covers 234 and 241 are clipped onto their base members 230 and 237 respectively and the end covers 248 clipped onto the end stop base members 244. The fascia members 235 and 242 of the cover members 234 and 241 extend beyond and hide the butt joints between the cover strips 221 and base members 230 and 237. Similarly, the fascia members 250 of the end strip covers 248 hide the butt joints between the cover strips 221 and end base members 244.

If it is necessary to join lengths of cover strips 221, a joiner 255 of the type illustrated in Figure 30 is employed. The joiner 255 has an outer fascia member 256 which is of similar configuration to the fascia member 222 of the cover strip 221 and which is provided on its inner side with a rib 257 which carries return members 258 which define with the rear side of the fascia member 256, slots 259 on opposite sides into which opposite ends of cover strips 221 may be received and captured. The joiner 255 thus can join a pair of adjacent cover strips 221 and also cover a butt joint between backing members 210.

10

Figures 31 and 32 may be installed in association with the skirting board assembly 200. The bait box 260 comprises a hollow oblong container 261 which is open at each end and which in external cross section is substantially the same as the cross section of the openings 220 in the backing member 210. The front end 262 of the container 261 is provided with a lip 263 which acts as a stop to engage the front face of the backing member 210 when the container 261 is inserted into an opening 220. The front of the container 261 is also provided with a hinged door 264 which may be opened to permit placement of baits therein or inspection, and closed and latched in position by a finger 265 engaging with a complementary recess or latch member in the container 261.

25

After installation of the skirting board assembly 200 as shown in Figure 17, access may be readily had to the wall frame 201 for inspection of any termite activity by removal of the appropriate corner covers 234 and 241 and/or end stop covers 248 and pivoting the cover strips 221 downwardly. This allows inspection through the openings 220 in the backing member 210. The bait boxes 260 may be installed where required with suitable baits provided therein

21

to attract termites or control vermin such as rats, mice, cockroaches, silverfish and black ants by application of pest baits and sprays. After installation of bait boxes 260 and suitable baits, the doors 264 may be closed and the cover strips 221 pivoted to a closed position and the covers 234, 241 and 248 reinstalled.

5

20

25

The backing member 210 provides continuous support to the bottom edge of the plasterboard or other wall sheeting including mid-span between studs thus eliminating distortion in the surface of the wall sheeting and maintaining strength to resist normal wear and tear in a home. The skirting board --assembly-200-may be installed at the time of building construction or post construction.

The co-operable latching members on the cover strip and backing board and corner base members and covers as well as the end stop bases and their covers may be in many different configurations other than those illustrated and described.

The components of the skirting board assembly of Figures 17 to 32 are preferably formed of plastics by moulding with the elongated components 210 and 221 extruded. The components however may be formed of other materials including recycled materials. It is preferred however that the materials be not susceptible to any timber pest attack from termite borer or from fungal decay. In the event of termite infestation, the skirting board assembly can be removed and reinstalled upon repair of the damaged areas.

Whilst the building wall structures of the present Invention are primarily for use in detecting termite activity, including baiting, detection and eradication of termites, other uses include:

15

to conceal electrical and audio cabling post construction with little disturbance of existing wall finishes:

enabling the early detection of leaking plumbing in wall cavities (which can attract termite activity) and any consequent fungal or similar decay; and

offering a difficult to detect site for the installation of a security system and/or a safe for valuables.

Throughout this specification, unless the context requires otherwise, the word "comprise", or variations such as "comprises" or "comprising", will be understood to imply the inclusion of a stated integer or group of integers but not the exclusion of any other integer or group of integers.

It will be further appreciated that the foregoing detailed description of an implementation of the invention has been presented by way of example only, and that modifications and alterations can be made thereto without departing from the inventive concept as defined in the following claims.

## CLAIMS

5

- 1. A wall structure for a building including a gap provided between a bottom edge of an interior wall cladding, said wall cladding being carried by a wall frame, and a bottom wall frame member of said frame whereby lower portions of said wall frame are accessible through said gap, and a wall skirting means adapted to fit along and support said bottom edge of said cladding and to cover said gap, said wall skirting means including a wall skirting member movable away from said wall structure to allow for access to said wall frame through said gap.
- A wall skirting means adapted to be associated with a wall structure of a building having an interior wall cladding carried by a wall frame and in which a gap is provided between a bottom edge of said cladding and a bottom wall frame member of said frame, said wall skirting means being adapted to fit along and support said bottom edge of said wall cladding and cover said gap, said wall skirting means including a wall skirting member movable away from said wall structure to allow for access to said wall frame through said gap.
  - 3. A wall skirting means as defined in Claim 2 wherein, said wall skirting member is secured to said wall structure by one or more clips which couple said skirting member to lower portions of upright wall frame members and/or bottom wall frame members that are exposed by said gap in said wall cladding.
    - A wall skirting means as defined in Claim 2 wherein, said wall skirting member is secured to said wall structure by magnetic coupling means.

5. A wall skirting means as defined in Claim 4 wherein, said magnetic coupling means includes a magnetic strip affixed to a rearwardly facing surface of said skirting member and a complementary metal strip affixed to an outwardly facing surface of a horizontal frame member of said frame, magnetic attraction between the magnetic strip and metal strip holding said skirting member in place relative to said wall frame.

5

- A wall skirting means as defined in any one of Claims 2 to 5 wherein, said wall skirting member includes a rebate or recess in which a lower edge of said wall skirting member is located and thereby supported.
- 7. A wall skirting means as defined in Claim 6 wherein, said rebate or recess is provided in an upper inside portion of the said skirting member.
  - A wall skirting means as defined in any one of Claims 2 to 7 wherein, said bottom edge of said wall cladding is releasably connected to said wall skirting member.
    - A wall skirting means as defined in Claim 8 wherein, said bottom edge
      is fitted with a rail and a releasable connection means is provided
      between said rail and said wall skirting member.
- 10. A wall skirting means as defined in Claim 9 wherein, said releasable connection means comprises a slot or the like in said rail and a clip member extending from said wall skirting member which is releasably receivable in said slot in said rail.

. 20

- 11. A wall skirting means as defined in Claim 10 wherein, said rail further includes a slot or channel into which said bottom edge of said wall cladding can be located.
- 12. A wall skirting means as defined in Claim 2 wherein, a support framework is attached along said bottom edge of said wall cladding and said wall skirting member is mountable to said support framework.
  - 13. A wall skirting means as defined in Claim 12 wherein, said support framework extends between said bottom edge of said wall cladding and said bottom frame-member and is-affixed to-said wall frame.
- 10 14. A wall skirting means as defined in Claim 13 wherein, said bottom edge of said wall cladding is located in a rebate, recess or channel in an upper portion of said support framework so as to be supported longitudinally of said wall structure.
- 15. A wall skirting means as defined in any one of Claims 12 to 14 wherein said wall skirting member is releasably attached to said support framework.
  - 16. A wall skirting means as defined in Claim 15 wherein, said support framework includes an outwardly facing slot adapted to receive one or more securing clips or projections on a rear face of said wall skirting member.
  - 17. A wall skirting means as defined in Claim 15 wherein, a magnetic latching means is operatively connected between said support framework and said wall skirting member.

PCT/AU2004/000817

WO 2004/113644

5

- 18. A wall skirting means as defined in Claim 15 wherein, said wall skirting member is pivotally or hingedly mounted to said support framework.
- 19 A wall skirting means as defined in Claim 18 wherein, a latching means is provided to releasably retain said wall skirting member in a closed position.
- 20. A wall skirting means as defined in Claim 19 wherein, said latching means comprises co-operable latching members on said support framework and said wall skirting member.
- A wall skirting means as defined in any one of Claims 2 to 20 wherein, bait containers are associated with said wall skirting means for treatment of, or attracting, termites or other insects or vermin in said wall structure.

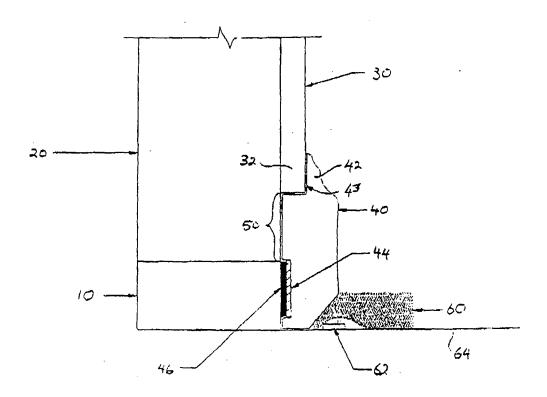
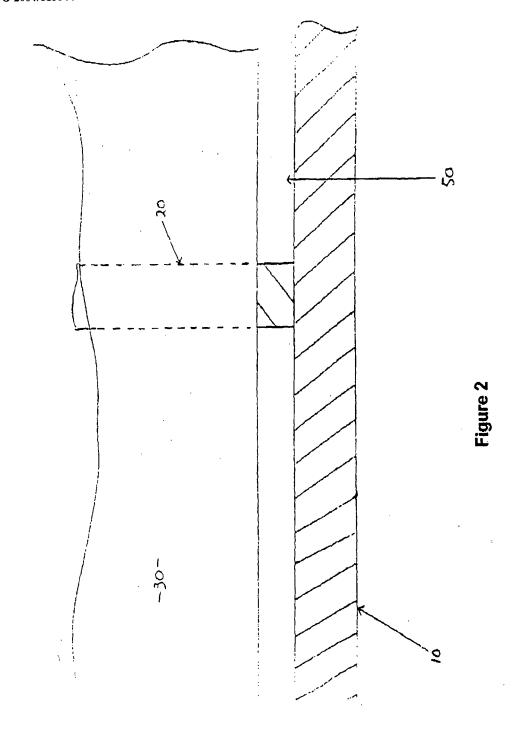
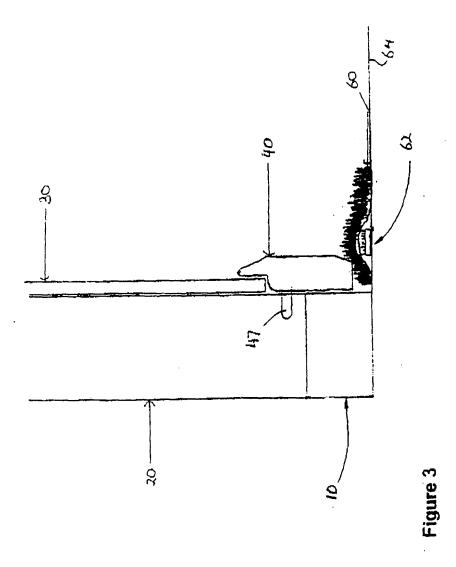
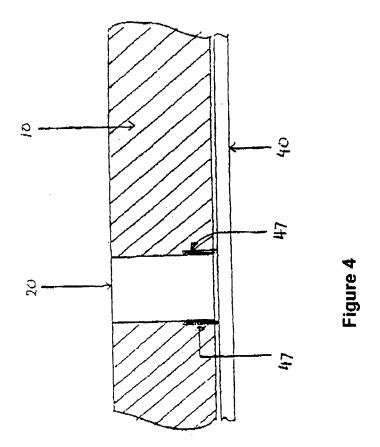


Figure 1







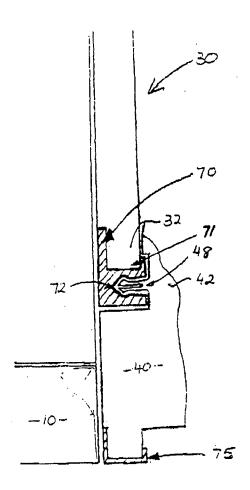


Figure 5

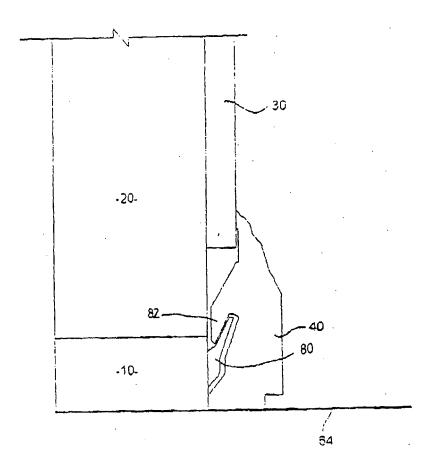


Figure 6

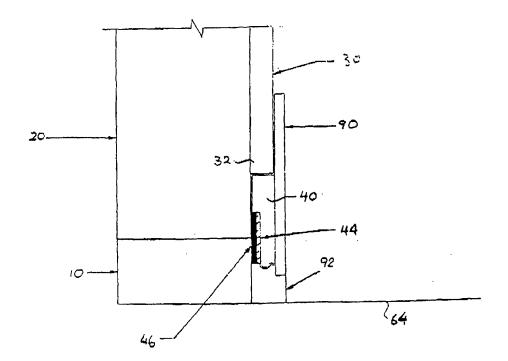


Figure 7

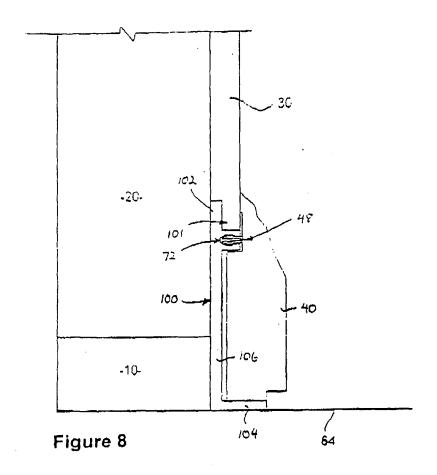
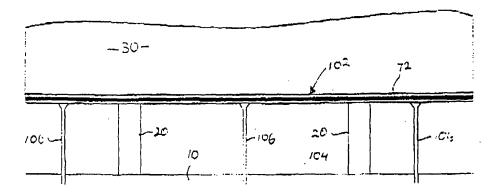


Figure 9



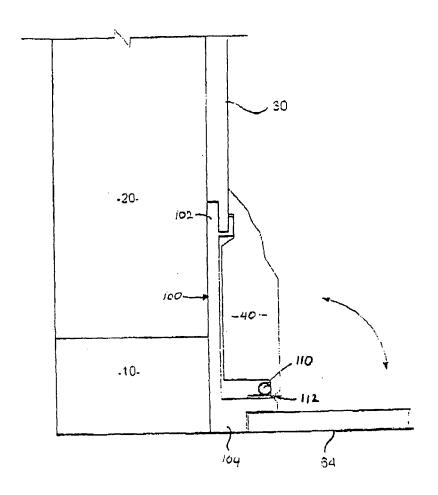


Figure 10

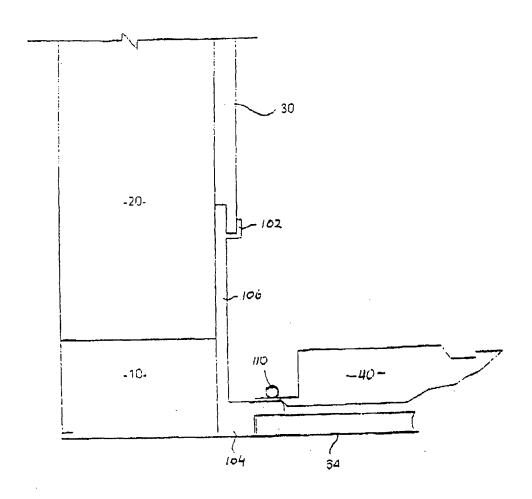


Figure 11

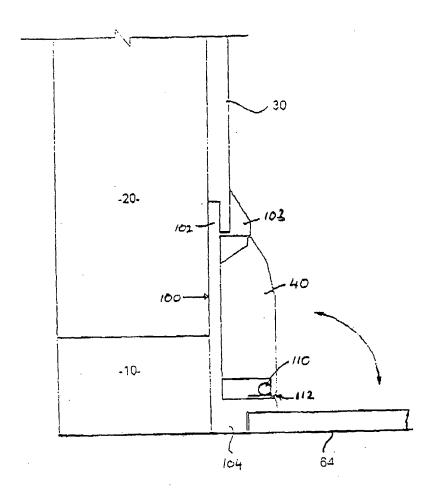


Figure 12

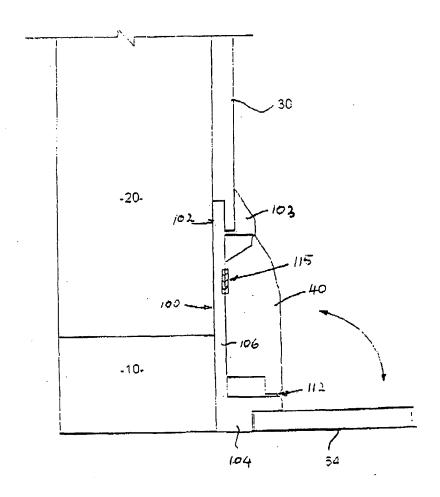


Figure 13

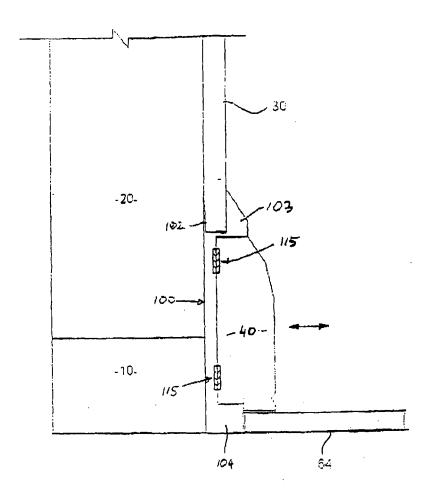


Figure 14

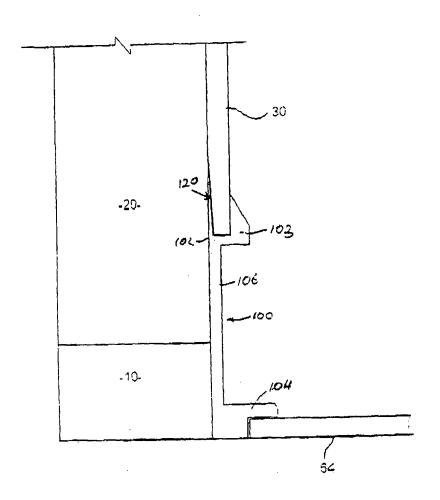


Figure 15

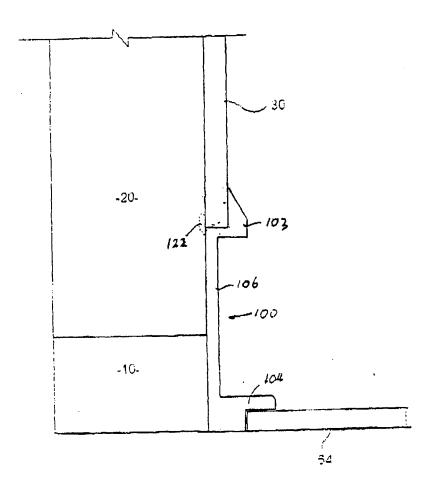
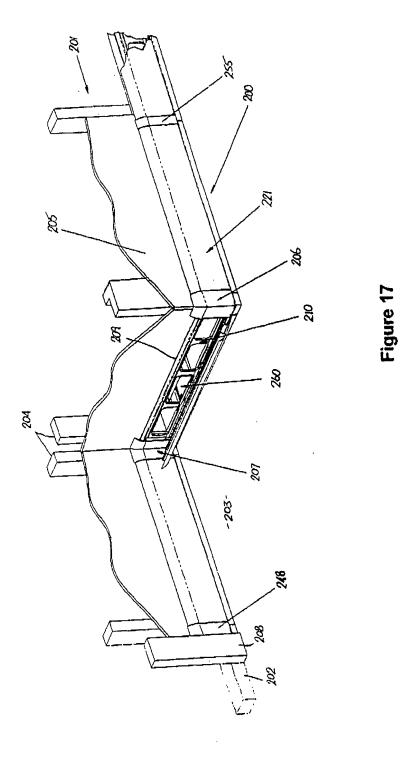
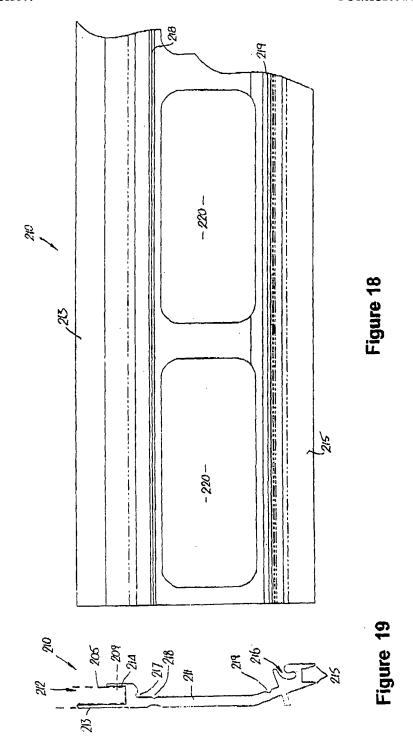


Figure 16



16/27



17/27

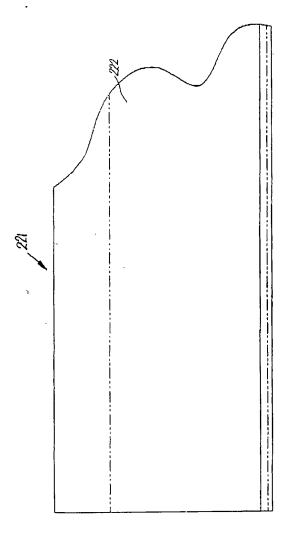


Figure 20

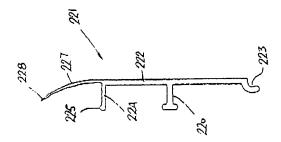


Figure 21

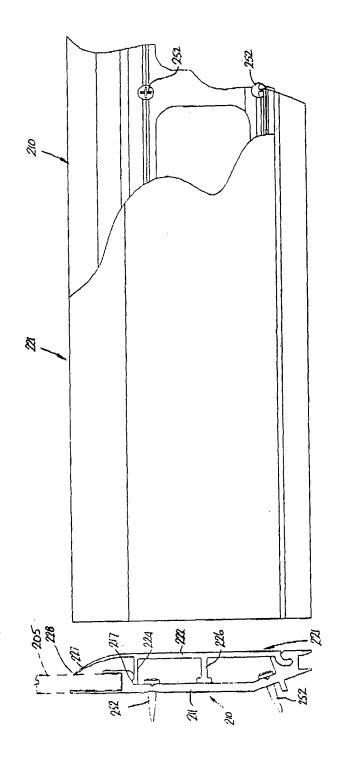
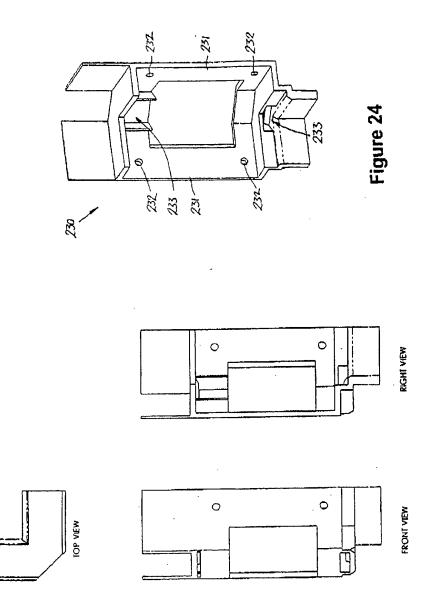
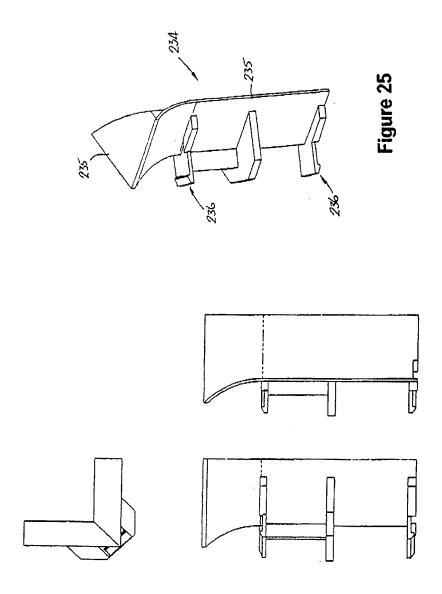
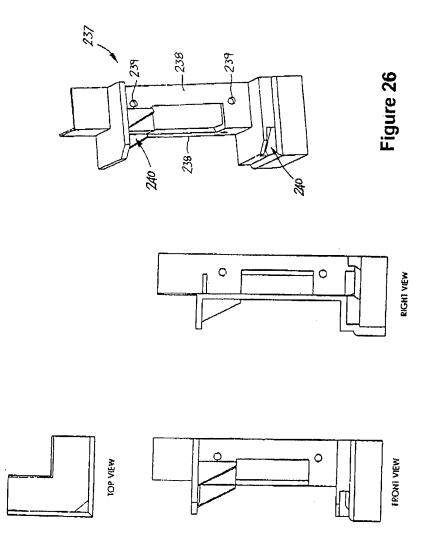


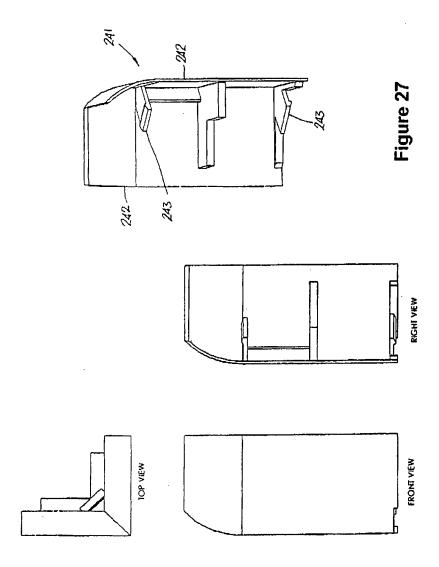
Figure 22

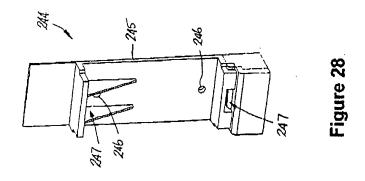
Figure 23



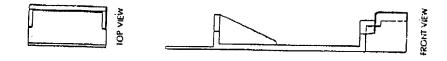


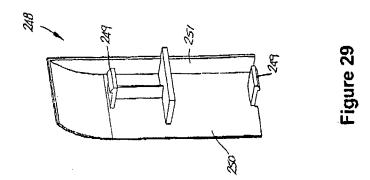


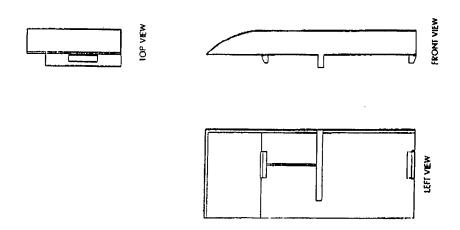












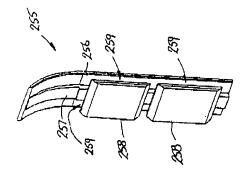
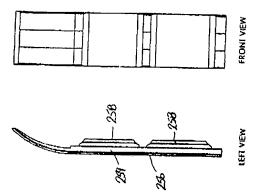


Figure 30



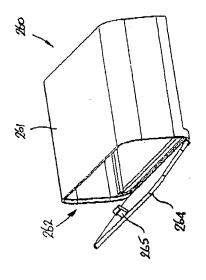


Figure 31

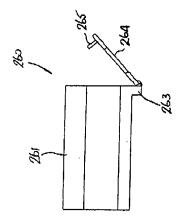


Figure 32

## INTERNATIONAL SEARCH REPORT

International application No. PCT/AU2004/000817

Α.	CLASSIFICATION OF SUBJECT MATTER							
Int. Cl. 7:	E04F 19/04, E04H 9/16, E04B 1/72							
According to	International Patent Classification (IPC)	or to b	oth national classification and IPC					
В.	FIELDS SEARCHED							
REFER ELE	mentation searched (classification system fol CCTRONIC DATA BASE CONSUL	TED E	BELOW					
Documentation AU: IPC E0	searched other than minimum documentatio 4F 19/04, E04H 9/16, E04B 1/72	n to the	extent that such documents are included in the fields search	hed				
DWPI: keyw	ords: E04B, E04F, E04H 9/-, skirt, r	emov,	of data base and, where practicable, search terms used) detach, demount, releas, open, clos, expos, magest, rot, mould, inspect, view, indicat, see and si	gnet, clasp, clip, milar terms.				
	DOCUMENTS CONSIDERED TO BE REI							
Category*	ory* Citation of document, with indication, where appropriate, of the relevant passages							
P,X	AU 200215588 A (WAKELIN) 14 See figures	Augu	st 2003	1-20				
x	AU 200124878 B (WAKELIN) 8 I See figures	Novem	ber 2001	. 1-20				
<b>X</b>	WO 1996/020317 A (WATSON) 4 See figures	July 1	1996	1-20				
Y	AU 206390(11574/55) B (HARDI See figures	NG) 2 .	August 1956	1-20				
X Fu	urther documents are listed in the cor	ntinuat	ion of Box C X See patent family ann	ex				
"A" document	ategories of cited documents: a defining the general state of the art which is dered to be of particular relevance	"T"	later document published after the international filing date or p conflict with the application but cited to understand the princip	riority date and not in ie or theory				
"E" earlier app internatio	plication or patent but published on or after the nal filing date	"X"	underlying the invention document of particular relevance; the claimed invention cannot or cannot be considered to involve an inventive step when the	be considered novel locument is taken				
or which i	which may throw doubts on priority claim(s) is cited to establish the publication date of	ΨY"	alone document of particular relevance; the claimed invention cannot involve an inventive step when the document is combined with	one or more other				
"O" document or other n		"&"	such documents, such combination being obvious to a person si document member of the same patent family	killed in the art				
but later the	published prior to the international filing date han the priority date claimed							
Date of the actual 28 September	d completion of the international search		Date of mailing of the international search report 5 0 CT 2004					
_	g address of the ISA/AU		Authorized officer	· · · · · ·				
AUSTRALIAN I	PATENT OFFICE ODEN ACT 2606, AUSTRALIA							
E-mail address: p	oct@ipaustralia.gov.au		VINCE BAUSAUSKAS					
Facsimile No. (0	12) 0203 3929		Telephone No: (02) 6283 2110					

## INTERNATIONAL SEARCH REPORT

International application No. PCT/AU2004/000817

C (Continuati		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Х	WO 2001/069013 A (OVINGTON) 20 September 2001 See figures	. 21
	·	
•		
		·

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No. PCT/AU2004/000817

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report		Patent Family Member					
AU	200215588	NIL					
ΑU	740538	NIL					
wo	1996/020317	AU	47439/96		US	5901516	
wo	2001/069013	AU	403 <b>63/0</b> 1		US	2003039612	
AU	206390	NIL					

Due to data integration issues this family listing may not include 10 digit Australian applications filed since May 2001.

END OF ANNEX